

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/048809 A1

(51) International Patent Classification⁷:

A61B

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2003/033832

(22) International Filing Date: 23 October 2003 (23.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (*for all designated States except US*): **SHERWOOD SERVICES AG [CH/CH]**; Bahnhofstr. 29, CH-8200 Schaffhausen (CH).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **GREGG, William, N. [US/US]**; 1276 S. Idalia Court, Superior, CO 80027 (US). **BLAHA, Derek, M. [US/US]**; 1800 Fountain Court, Longmont, CO 80503 (US).

(74) Agent: **DENNINGER, Douglas**; Tyco Healthcare Group LP, 150 Glover Avenue, Norwalk, CT 06850 (US).

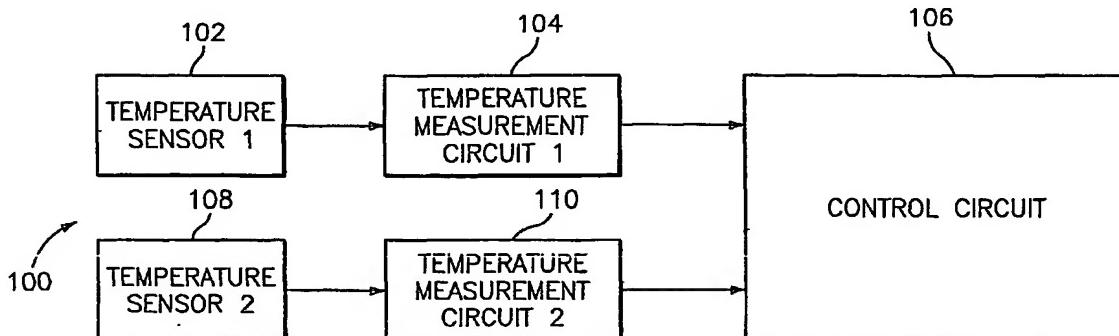
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: REDUNDANT TEMPERATURE MONITORING IN ELECTROSURGICAL SYSTEMS FOR SAFETY MITIGATION



(57) Abstract: A redundant temperature monitoring system and method for an electrosurgical system are provided. The temperature monitoring circuit includes at least one temperature sensor for sensing a temperature at a measuring point, a first temperature measurement circuit coupled to the at least one temperature sensor for generating a first temperature value, a second temperature measurement circuit coupled to the at least one temperature sensor for generating a second temperature value, and a control circuit for determining a difference between the first and second temperature values and for comparing the difference to a first predetermined threshold. If the difference is greater than the first predetermined threshold, the control circuit generates a warning signal. If the difference is greater than a second predetermined threshold, the control circuit generates an alarm signal and/or shuts down a power source of the electrosurgical system.

WO 2005/048809 A1